Response to Restriction Requirement

And Amendment

U.S. Application No.: 10/521,119

# AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Attorney Docket No.: Q85610

#### LISTING OF CLAIMS:

1. (Currently amended) An N-phenyl-(2R,5S)dimethylpiperazine derivative represented by the following general formula. (I) or a salt thereof:

$$N = \begin{array}{c} R1 \\ N \\ R2 \end{array}$$

wherein the symbols in the formula have the following meanings:

R<sup>1</sup>: Cl, F, Br, -CN, -CH<sub>3</sub>, -CF<sub>3</sub>, or -O-lower alkyl

 $R^2$ : H, F, or -OCH<sub>3</sub>

R<sup>3</sup>: H or lower alkyl

Cy: a group represented by the following a) to e) groups

a) benzene (monosubstituted by CN, COCH<sub>3</sub>, or -OCF<sub>3</sub>)

b)—benzene (phenyl monosubstituted by a group selected from SCF<sub>3</sub>, OCH<sub>3</sub>, -NO<sub>2</sub>, and 1-CN-cyclopropyl-1-yl, or disubstituted by groups one of which is -CN and another one of which is selected from OCF<sub>3</sub>, OCH<sub>3</sub>, -CH<sub>3</sub>, -CF<sub>3</sub>, and -C1)

## Response to Restriction Requirement

And Amendment

U.S. Application No.: 10/521,119

Attorney Docket No.: Q85610

- e) ——pyridine (substituted by -CN, -CF<sub>3</sub>, halogen, -OCH<sub>2</sub>CF<sub>3</sub>, or eyclopropyl)

  pyrimidine (monosubstituted substituted by a lower alkyl or a cyclopropyl group.)

  e) ——imidazopyridine (optionally substituted by lower alkyl)

  -benzopyrazine (optionally substituted by lower alkyl or cycloalkyl)

  -quinoxaline (optionally substituted by -O-lower alkyl or morpholinyl)

  -quinoline (optionally substituted by lower alkyl or morpholinyl)

  -benzothiazole (optionally substituted by lower alkyl)

  -isoquinoline

  -benzothiadiazole (optionally substituted by lower alkyl)

  -indolidine or tetrahydrobenzofuran (optionally substituted by oxo)

  provided that, when R<sup>1</sup> is -CF<sub>3</sub> and R<sup>2</sup> is H, Cy represents a group other than the c) group.
- 2. (Currently amended) The N-phenyl-(2R,5S)dimethylpiperazine derivative or salt thereof according to claim 1, wherein  $R^1$  is Cl, F, Br,  $CF_3$ , CN,  $CH_3$ , or CN, or CN, or CN, and CN is CN.

## 3. (Cancelled)

4. (Currently amended) A compound selected from (2R,5S) -4- (3-chloro-4-cyanopheny1)-N- (2-cyclopropylpyrimidin-5-y1) -2,5-dimethylpiperazine-1-carboxamide; (2R,

5S) -4- (3-chloro- 4-cyanophenyl) N- (6-cyano-3-pyridyl) -2 ,5-dimethylpiperazine 1-earboxamide; (2R, 5S) -4- (4-cyano-3-methoxyphenyl) -2 ,5-dimethyl -N- (6-trifluoromethyl-3-pyridyl) piperazine 1-carboxamide; (2R,5S) -4- (3-bromo-4-cyanophenyl) -2 ,5-dimethyl N- (6-trifluoromethyl-3-pyridyl)piperazine 1-carboxamide; and (2R, 5S) -4- (4-cyano-3-trifluoromethylphenyl) -N- (2-cyclopropylpyrimidin-5-yl) -2 ,5-dimethylpiperazine-1-carboxamide, or a salt thereof.

- 5. (Original) A pharmaceutical composition comprising the N-phenyl(2R,5S)dimethylpiperazine derivative according to claim 1 or a pharmaceutically acceptable salt thereof as an active ingredient.
- 6. (Original) A prostate cancer-treating agent comprising a therapeutically effective amount of the N-phenyl(2R,5S)dimethylpiperazine derivative according to claim 1 or a pharmaceutically acceptable salt thereof as an active ingredient.
  - 7. (Cancelled)
- 8. (Original) A method for treating prostate cancer which comprises administering a therapeutically effective amount of the N-phenyl-(2R,5S)dimethylpiperazine derivative according to claim 1 or a pharmaceutically acceptable salt thereof.

Response to Restriction Requirement

And Amendment

U.S. Application No.: 10/521,119

Attorney Docket No.: Q85610

### 9. (Cancelled)

10. (new) A compound selected from

(2R, 5S)-4- [4-cyano-3-(trifluoromethyl)phenyl] -2, 5-dimethyl-N-(2-methylpyrimidin-5-yl)pip erazine- l -caxboxamide;

(2R,5S)-4-[4-cyano-3-(trifluoromethyl)phenyl]-N-(2-cyclopropy)pyrimidin-5-yl)-2, 5-di methylpiperazine - l-carboxamide;

(2R,5S)-4-(3-chloro-4-cyanophenyl)-2,5-dimethyl-N-(2-methylpyrimidin-5-yl)piperazin e-l-carboxamide; (2R, 5S)-4-(3 -chloro-4-cyanophenyl)-N-(2-cyclopropylpyrimidin-5 -yl)-2, 5-dimethylpiper azine-l-carboxamide;

(2R,5S)-4-(4-cyano-3-methoxyphenyl)-N-(2-cyclopropylpyrimidin-5-yl)-2,5-dimethylpi perazine- 1-carboxanxide;

(2R,5S)-4-(4-cyan-3-fluoro-5-methoxyphenyl)-N-(2-cyclopropylpyrimidin-5-yl)-2,5-di methylpiperazine- l-carboxamide;

(2R, 5S)-4-(3-bromo-4-cyanophenyl)-N-(2-cyclopropylpyrimidin-5-yl)-2,5-dimethylpiper azine-l-carboxamide; and

(2R, 5S)-4-(3-bromo-4-cyanophenyl)-2,5-dimethyl-N-(2-methylpyrimidin-5-yl)piperazin e-l-carboxamide, or a salt thereof.